# Irrigation Water Quality Guidelines Versus Existing Agricultural Water Qualities

| Potential Irrigation Problem & Related Constituents | *Acceptable Guidelines* | | | *Existing DMC Water Quality*[c] *(Average 1993 - 1994 values)* | |
|---|---|---|---|---|---|
| | No Problems | Increasing Problems | Severe Problems | Tracy Pumping Plant | O'Neil Pumping Plant |
| **Salinity** | | | | | |
| Electroconductivity (EC), dS/m | <0.75 | 0.75 - 3.0 | 3.0 - 7.5 | 0.54 | 0.65 |
| TDS, mg/L[a] | 500 | 500 - 2000 | 2000 - 5000 | 325 | 364 |
| **Permeability** | | | | | |
| Adj. SAR | <6.0 | 6.0 - 9.0 | >9.0 | n/a | n/a |
| **Specific Ion Toxicity** | | | | | |
| **From root absorption** | | | | | |
| Sodium, Adj. SAR | <3.0 | 3.0 - 9.0 | >9.0 | n/a | n/a |
| Chloride, mg/L | <140 | 140 - 350 | >350 | 81 | 115 |
| Boron, mg/L[b] | <0.5 | 0.5 - 2.0 | 2.0 - 10.0 | 0.64 | 0.22 |
| **From foliar absorption** | | | | | |
| Sodium, Adj. SAR | <70 | >70 | _ | 78 | 76 |
| Chloride, mg/L | <100 | >100 | _ | 81 | 115 |
| **Nutrients** | | | | | |
| Nitrogen, mg/L | <5.0 | 5.0 - 30.0 | >30.0 | n/a | n/a |

extremes too

RWQCB - EPA Ag WQ goals - 1° + 2° MCL's - add' monitoring data

SJ River water

add Delta drainage aff area cols. - special criteria

[a] **No problems** - No detrimental effects are usually noticed.
**Increasing problems** - At TDS of 500 - 1000 mg/L, water can have detrimental effects on sensitive crops. At TDS of 1000 - 2000 mg/L, water can have detrimental effects on sensitive crops. Careful management practices are required.
**Severe Problems** - Water can be used only on tolerant plants on permeable soils with careful management practices

[b] **No problems** - Satisfactory for all crops.
**Increasing problems** - At 0.5 - 1.0 mg/L, satisfactory for most crops; sensitive crops may show leaf injury but yields may not be affected. At 1.0 - 2.0 mg/L, satisfactory to semi-tolerant crops. Yield and vigor of sensitive crops are usually reduced.
**Severe problems** - At 2.0 - 10.0 mg/L, only tolerant crops produce satisfactory yields.

[c] Provided by USBR and Delta Mendota & San Luis Water Authority.

Alkalinity

**Source: Step 1 - Executive Summary, Central California Regional Water Recycling Project**



D-032515
D—032515